

AN ENVIRONMENTAL MANAGEMENT INVENTORY OF GALVESTON BAY

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EXECUTIVE SUMMARY

Purpose

The outpouring of environmental concern that began in the 1960s in the United States resulted in passage of more than 20 major federal statutes and scores of state and local laws. As new problems were identified, new laws were added to the list. Thus U.S. environmental policy is embodied in a multitude of laws and carried out by many different agencies at different levels of government. The early laws tended to focus on a single medium or problem: air, water, noise, endangered species. Growing experience and scientific understanding suggested the importance of a more comprehensive approach such as the "cradle-to-grave" oversight of hazardous materials required by the Resource Conservation and Recovery Act (RCRA). Nevertheless, U.S. environmental policy remains generally fragmented, a result of the history of incremental additions to the statutory arsenal. Recent concerns about cross-media pollution and preservation of entire ecosystems have yet to be embodied in law.

An important exception to this generally piecemeal approach to environmental oversight are the more comprehensive planning requirements of the federal Coastal Zone Management Act of 1972 and the National Estuary Program established by the Water Quality Act of 1987. The former law encouraged coastal states to develop comprehensive plans for protecting coastal resources, including beaches, sand dunes, and wetlands, and tried to overcome one of the most important barriers to coherent policymaking by allowing states to control federal projects in state waters. The National Estuary Program reflects the new scientific understanding of the importance of estuaries in maintaining the health of large coastal ecosystems and calls for development of Comprehensive Conservation and Management Plans (CCMPs) in "estuaries of national significance."

In order for the CCMP to take a comprehensive and coordinated approach to environmental protection in the affected estuary, it must either operate within the existing regulatory framework or act to change it. Both paths rest on a clear and systematic understanding of the multitude of federal, state, and local laws and agencies that have gained authority over different aspects of the environment during the last quarter century.

The purpose of this report is to provide an inventory of those agencies and laws, along with their associated regulations, that constitute the regulatory framework for environmental

protection of Galveston Bay, one of the estuaries of national significance covered under the 1987 law. This inventory is largely descriptive, serving as the first phase in a larger project which will ultimately evaluate the effectiveness of the existing regulatory framework. That assessment in turn will form the basis for the CCMP as well as for policy recommendations to improve the coordination of environmental management of the Bay.

Report Organization

Because of the multiplicity of laws, regulations, and agencies, as well as their overlapping authorities, it is not easy to provide an orderly inventory. For example, the federal Clean Water Act is now being implemented by two federal agencies—the Environmental Protection Agency and the Army Corps of Engineers—as well as by designated agencies in the several states to which EPA has delegated authority (the Texas Water Commission for Galveston Bay). Concern about human health from environmental pollution is embodied in numerous statutes, including the Safe Drinking Water Act, pesticide laws, the Clean Air Act, and the so-called "Superfund" Act, all administered by EPA. Another example is the permitting of disposal of dredge and fill, which requires participation of as many as nine agencies. Because of the cross-cutting and overlapping regulatory authorities, it is difficult to identify an ordering principle that allows us to describe each law or agency only once.

We have resolved this difficulty in two ways. In this report, the appendices contain brief descriptions of each law and agency, while the main body of the text considers the Action Plan Topics identified by the Galveston Bay National Estuary Program. These topics were developed to identify the general topics to be addressed by the CCMP Action Plans. They are listed in Table 1; those covered in this report—that is, the substantive topics concerning source controls and estuary management—are indicated by a checkmark at the left-hand side. The appendices are accompanied by a table that lists the agencies with the laws they administer. Appendix 1 presents information about federal laws and agencies. Appendix 2 is organized differently: It is not the custom to identify separate state laws in the same way as federal laws, but rather to refer to the sections of the different Texas Codes (Natural Resources, Health, etc.) where those statutes are codified. Therefore, Appendix 2 is organized only by state agency, with appropriate references to the codes included in the discussions. Appendix 3 presents descriptions of many of the local and regional bodies whose ordinances, regulations, and activities affect the environment of Galveston Bay. In the main body of the report, those agencies, laws, or other topics covered in the appendices are indicated at their first mention by a **boldface** reference.

Our second approach to the difficulty of cross-cutting regulatory authorities is to develop a computerized information base using hypertext, a technique that allows the programmer (and the user) to create pathways between different pieces of information. This in turn allows the user to look at the information in different ways: along different axes, as it were. In our system, users may explore information about the environmental regulatory framework for Galveston Bay according to agency, law, problem, and other characteristics. The user may also switch back and forth among these methods of obtaining information and may

Table 1
Action Plan Topics List
Galveston Bay National Estuary Program

Overall

1. Framework for Action

Action Plan Support

Source Controls

- ✓ 2. Point Sources
- ✓ 3. Non-Point sources
- ✓ 4. Spills/Dumping
- ✓ 5. Dredging/Filling
- ✓ 6. Freshwater Inflow

- 12. Monitoring
- 13. Data and Information Management
- 14. Research
- 15. Public Participation

Estuary Management

- ✓ 7. Shoreline Development
- ✓ 8. Habitat Protection
- ✓ 9. Species Population Protection
- ✓ 10. Public Health Protection
- ✓ 11. Subsidence/Shoreline Erosion/
Sea Level Rise

obtain it at different levels of detail. Thus the cross-cutting categories are embodied in the pathways, while each specific description of a law, agency, or regulation is contained only once. This makes a very efficient method of providing information as complex as that contained in the management inventory. Finally, the computerized information system may be updated as laws and especially regulations change, making it more flexible than a printed document. Rather than presenting large sections of the statutes and regulations in the text of this report, we have incorporated many of them verbatim in the computerized information system. These are indicated in the text of the present report by an underlined reference.

This report was prepared in midsummer, 1991. In the First Called Session of the Texas Legislature, August 1991, a bill was passed that reorganized many of the agencies dealing with environmental protection. Because the full implications of the reorganization will not be apparent for several months, we will not discuss it in the remainder of the report. S.B. 2 creates a new agency, the Texas Natural Resource Conservation Commission, which will come into being on September 1, 1993, replacing and incorporating the functions of the Texas Water Commission, the Texas Air Control Board, the Water Well Drillers Board, and the Texas Board of Irrigators. In addition, on March 1, 1992, several functions of the Texas Department of Health will be transferred to TWC: solid waste, water hygiene, on-site sewage and wastewater treatment, and radioactive waste disposal. Readers should note that these changes in administration will be made; we will discuss them more fully in the Management Evaluation to be completed in summer, 1992. Finally, in February and March 1992, the

TWC underwent a complete reorganization; the new structure is described in Appendix B.

In addition to the main body and appendices, the text portion of this report contains a bibliography of sources for the information contained here. We consulted numerous written documents as well as interviewing many staff people in relevant agencies. We are grateful for the assistance of all of them.

The project was conducted by the Lyndon B. Johnson School of Public Affairs, The University of Texas at Austin. Student interns Paige Buechley and Charles Crout were instrumental in conducting many of the interviews and gathering primary materials. Professors Chandler Stolp and Terrell Blodgett were also on the project team. The computerized information system was prepared by W. James Hadden, Jr.

Although the inventory is only the first step in the much larger management evaluation, we have attempted to make this report readable on its own. To that end, we begin with a brief description of Galveston Bay.